

F-891  
31223.00130

**AMENDMENT TO THE CLAIMS**

Claims 1 – 22 (**Cancelled**).

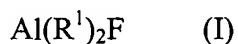
Please add the following new claims:

23. **(New)** A process for the preparation of an activated support suitable for supporting a metallocene complex comprising:
- a) providing a particulate support material comprising particles of a porous mineral oxide;
  - b) contacting said porous mineral oxide particles with a fluorinated functionalizing agent to provide functionalized support particles;
  - c) heating said functionalized support particles in an inert atmosphere and at an elevated temperature sufficient to effect pyrolysis of said support particles;
  - d) subjecting the pyrolysed support particles of subparagraph c) to an oxidizing treatment in the presence of an oxygen containing gas at an elevated temperature effective to oxidize said support particles; and
  - e) recovering active fluorinated support particles after said oxidizing treatment.
24. **(New)** The method of claim 23 wherein said mineral oxide support particles are selected from the group consisting of alumina and silica particles.
25. **(New)** The method of claim 24 wherein said support particles comprises silica.
26. **(New)** The method of claim 25 wherein said support particles are heated in subparagraph c) to a temperature in the range of 200-600° C.

27. (New) The method of claim 26 wherein said support particles are heated in subparagraph c) to a temperature within the range of 350-500° C.

28. (New) The method of claim 25 wherein said fluorinated functionalizing agent comprises a dialkyl aluminum fluoride.

29. (New) The method of claim 28 wherein said dialkyl aluminum fluoride is characterized by the formula



wherein the  $\text{R}^1$  groups can be the same or different and are linear or branched alkyl groups having from 1 to 20 carbon atoms.

30. (New) The method of claim 29 wherein the  $\text{R}^1$  groups are the same and are methyl, ethyl, isopropyl or linear or branched butyl groups.

31. (New) The method of claim 28 wherein said dialkyl aluminum fluoride is diethylaluminiumfluoride.

32. (New) The method of claim 25 wherein said fluorinated functionalizing agent comprises a fluoroorganoaluminum compound.

33. (New) The method of claim 32 wherein said fluorinating agent comprises a mixture of said fluororganoaluminum compound and co-agent selected from the group consisting of MF,  $MR^2$ ,  $M'F_2$ ,  $M'R^2F$ , and  $M'R^2_2$  wherein M is a metal from group 1 of the Periodic Table, M' is a metal from group 2 of the Periodic Table and  $R^2$  is an alkyl group having from 1 to 20 carbon atoms.

34. (New) The method of claim 32 wherein said porous mineral oxide is silica having a specific surface area within the range of 100 to 1,000  $cm^2/g$ .

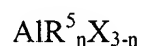
35. (New) The method of claim 34 wherein said silica has a porosity within the range of 1 – 4  $cm^3/g$ , a pore diameter within the range of 7.5 – 30 nm and an average particle size within the range of 1 – 100  $\mu m$ .

36. (New) An activated fluorinated support produced by the process of claim 32 comprising aluminum atoms having fluorine atoms which are directly linked to said aluminum atoms.

37. (New) A supported metallocene catalyst system comprising the activated support of claim 36 and a metallocene catalyst component supported on said support.

38. (New) The supported metallocene catalyst system of claim 37 wherein said metallocene comprises at least one cyclopentadienyl group coordinated with a transition metal from group 4 of the Periodic Table of Elements.

39. (New) The supported metallocene catalyst system of claim 38 further comprising an alkylating agent characterized by the formula:



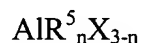
wherein the  $\text{R}^5$  groups may be the same or different and are each a substituted or unsubstituted alkyl groups containing from 1 to 12 carbon atoms, X is halogen or hydrogen and n is an integer from 1 to 3.

40. (New) The supported metallocene catalyst system of claim 39 wherein said operating agent is triethylaluminum or triisobutylaluminum.

41. (New) A method for preparing a supported metallocene catalyst system comprising:

- a) providing an activated fluorinated support as defined by claim 36;
- b) dissolving a metallocene catalyst component in an organic solvent to provide a solution to said metallocene catalyst component in said organic solvent;
- c) impregnating said activated fluorinated support with said solution of metallocene catalyst component; and
- d) recovering a supported catalyst system incorporating said metallocene catalyst compound and said activated fluorinated support.

42. (New) The method of claim 41 comprising providing an alkylating agent characterized by the formula:



wherein the  $\text{R}^5$  groups may be the same or different and are each a substituted or unsubstituted alkyl group, containing from 1 to 12 carbon atoms, X is halogen or hydrogen and n is an integer from 1 to 3;

contacting said support with said alkylating agent either concomitantly from or separately with the contact of said support with said metallocene component.